CALIFORNIA REGIONAL WATER QUALITY CONTROL BOARD
SAN FRANCISCO BAY REGION

ORDER No. 83-6

NPDES NO. CA0038644

WASTE DISCHARGE REQUIREMENTS FOR:

EDGERLY ISLAND RECLAMATION DISTRICT, EDGERLY ISLAND, NAPA COUNTY

The California Regional Water Quality Control Board, San Francisco Bay Region, (hereinafter Board) finds that:

1. Edgerly Island Reclamation District (hereinafter Discharger), by application dated December 19, 1982, has applied for waste discharge requirements and a permit to discharge waste under the National Pollutant Discharge Elimination System for the proposed Edgerly Island Wastewater Treatment Plant.

2. The discharger proposes to construct a sewage collection and treatment system to serve an area which now has numerous failing septic systems. Treatment will be provided by a mound percolation system followed by three ponds covering approximately 9.5 acres. The ultimate flow to the system will be approximately 40,000 gallons per day (gpd) during the peak month from 157 homes. Between December 1 and April 30 of each year the discharger proposes to discharge approximately 82,000 gpd (maximum 7 day average) of effluent and rainwater from the holding ponds to drainage channels within a marsh restoration project to be operated by California Department of Fish and Game. This marsh drains to Mud Slough and thence to the Napa River, waters of the United States.

3 The Regional Board adopted a revised Water Quality Control Plan for the San Francisco Bay Basin (Basin Plan) on July 21, 1982 and this Order implements the water quality objectives stated in that plan.

4. The beneficial uses of the Napa River in the vicinity of the discharge as contained in the Basin Plan are:

   a. Fish migration and spawning
   b. Wildlife habitat
   c. Preservation of rare and endangered species
   d. Cold freshwater habitat
   e. Warm freshwater habitat
   f. Navigation
   g. Water contact recreation
   h. Non-contact water recreation

5. The proposed discharge will not receive a minimum initial dilution of 10:1, and will be made to the tidal reach of the Napa River, a confined water body. This Board's Basin Plan prohibits such discharges, but provides for exceptions in cases where an inordinate burden would be placed on the discharger relative to the beneficial uses protected, and where an equivalent level of protection can be achieved by alternative means. The Board hereby finds that these criteria have been met for the proposed discharge based on the following:

   a. The project's alleviating of a severe public health problem from failing septic systems through proper wastewater collection and treatment;

   b. The exceptional cost of a pipeline to export this small flow the approximately eleven miles to the San Francisco Bay;

   c. The protection to beneficial uses afforded by:

      1. Limitation of the flow to wet weather months when average dilution is in excess of 100:1,

      2. The high degree of reliability anticipated from the proposed treatment system.

6. The County of Napa, in August 1981, certified as complete a Final Environmental Impact Report on the proposed wastewater management facilities.

7. The Environmental Impact Report identified only beneficial water quality impacts from this project. These include the abandonment of a large number of failing septic tank-leachfield systems in favor of a community collection and treatment system.

8. The Board has notified the disharger and interested agencies and persons of its intent to prescribe waste discharge requirements for the discharge and has provided them with an opportunity for a public hearing and an opportunity to submit their written views and recommendations.

9. The Board, in a public meeting, heard and considered all comments pertaining to this discharge.

IT IS HEREBY ORDERED, pursuant to the provisions of Division 7 of the California Water Code and regulations adopted thereunder, and to the provisions of the Federal Water Pollution Control Act, as amended, and regulations and guidelines adopted thereunder, that the discharger shall comply with the following:

A. Prohibitions

   1. Discharge from the holding ponds to waters of the State is prohibited from May 1 through November 30 of each year.

2. Discharge from the holding ponds at any location other than the designated pond effluent structure is prohibited.

3. There shall be no bypass or overflow of untreated wastewater to waters of the United States, either from the mound treatment system or from the collection system.

4. The average daily flow to the treatment plant shall not exceed 40,000 gallons per day (monthly average).

B. Water Quality Specifications

1. The treatment or disposal of waste shall not create a nuisance as defined in Section 13050(m) of the California Water Code.

2. Treated wastewater, as contained in holding ponds one and two shall meet the following limits at all times:

Dissolved Oxygen	2.0 mg/l minimum
Dissolved Sulfide	0.1 mg/l maximum
pH	6.0 minimum
	9.0 maximum

3. Treated wastewater as contained in holding pond 3 shall not exceed the following limits at any place within one foot of the surface.

a.	Dissolved oxygen	5.0 mg/l minimum. Annual median - 80% saturation. When natural factors cause lesser concentration(s) than those specified above, then this discharge shall not cause further reeduction in the concentration of dissolved oxygen.
b.	Dissolved sulfide	0.1 mg/l maximum.
c.	pH	Variation from natural ambient pH by more than 0.5 pH units.
d.	Un-ionized Ammonia as N	0.025 mg/l annual median 0.4 mg/l maximum

4. The following conditions shall not exist in waters of the United States at any place.

a. Floating, suspended, or deposited macroscopic particulate matter or foam;

b. Bottom deposits or deleterious aquatic growths;

c. Visible, floating, suspended, or deposited oil or other products of petroleum origin;

d. Toxic or other deleterious substances to be presented in concentrations or quantities which will cause deleterious effects on aquatic biota, wildlife, or waterfowl, or which render any of these unfit for human consumption either at levels created in the receiving waters or as a result of biological concentration.

5. A minimum of 18 inches of freeboard shall be maintained in the ponds at all times.

C. Effluent Limitations

1. The waste shall meet the following limits of water quality at some point in the treatment process prior to its introduction to holding pond 3.

Constituent	Units	30-day Average	7-day Average	Daily Maximum	Instantaneous Maximum
a. Biochemical Oxygen Demand (BOD)	mg/l	30	45	60	-
b. Suspended Solids	mg/l	30	45	60	-
c. Oil & Grease	mg/l	10		20	-
d. Settleable Matter	ml/l-hr	0.1		0.2	
e. Chlorine Residual	mg/l				0.0

2. The total coliform bacteria for a median of five consecutive samples of effluent shall not exceed 240 per 100 ml. Any single sample shall not exceed a most probable number (MPN) of 10,000 total coliform bacteria per 100 ml when verified by a repeat sample taken within 48 hours.

3. The pH of the discharge shall not exceed 9.0 nor be less than 6.0.

4. The survival of an acceptable test organism in 96-hour bioassays of the effluent shall achieve a 90 percentile value of not less than 70% survival and a median of 90% survival.

5. Representative samples of the effluent shall not exceed the following limits more than the percentage of time indicated:(1)

Constituent	Unit of Measurement	50% of time	10% of time
a. Arsenic	mg/l	0.01	0.02
b. Cadmium	mg/l	0.02	0.03
c. Total Chromium	mg/l	0.005	0.01
d. Copper	mg/l	0.2	0.3
e. Lead	mg/l	0.1	0.2
f. Mercury	mg/l	0.001	0.002
g. Nickel	mg/l	0.1	0.2
h. Silver	mg/l	0.02	0.04

i. Zinc	mg/l	0.3	0.5
j. Cyanide	mg/l	0.1	0.2
k. Phenolic Compounds	mg/l	0.5	1.0
l. Total Identifiable Chlorinated Hydrocarbons(2)	mg/l	0.002	0.004

(1)These limits are intended to be achieved through secondary treatment, source control and application of pretreatment standards.

(2)Total identifiable chlorinated Hydrocarbons shall be measured by summing the individual concentration of DDT, DDD, DDE, aldrin, BHC, chlordane, endrin, heptachlor, lindane, dieldrin polychlorinated byphenyls, and other identifiable chlorinated hydrocarbons.

6. The arithmetic mean of the biochemical oxygen demand and suspended solids values, by weight, for effluent samples of wastewater discharged through the outfall that are collected in a period of 30 consecutive calendar days, shall not exceed 15 percent of the arithmetic mean of the respective values, by weight, for influent samples collected at approximately the same times during the same period (85% removal).

D. Receiving Water Limitations

1. The discharge of waste shall not cause the following conditions to exist in waters of the United States at any place:

   a. Floating, suspended, or deposited macroscopic particulate matter or foam;

   b. Bottom deposits or deleterious aquatic growths;

   c. Visible, floating, suspended, or deposited oil or other products of petroleum origin;

   d. Toxic or other deleterious substances to be present in concentrations or quantities which will cause deleterious effects on aquatic biota, wildlife, or waterfowl, or which render any of these unfit for human consumption either at levels created in the receiving waters or as a result of biological concentration.

2. The discharge of waste shall not cause the following limits to be exceeded in waters of the United States in any place within one foot of the water surface:

a.	Dissolved oxygen	5.0 mg/l minimum. Annual median - 80% saturation. When natural factors cause lesser concentration(s) than those specified above, then this discharge shall not cause further reduction in the concentration of dissolved oxygen.
b.	Dissolved sulfide	0.1 mg/l maximum.
c.	pH	Variation from natural ambient pH by more than 0.5 pH units.
d.	Un-ionized Ammonia as N	0.025 mg/l annual median 0.4 mg/l maximum

3. The discharge shall not cause a violation of any applicable water quality standard for receiving waters adopted by the Board or the State Water Resources Control Board as required by the Federal Water Pollution Control Act and regulations adopted thereunder. If more stringent applicable water quality standards are promulgated or approved pursuant to Section 303 of the Federal Water Pollution Control Act or amendments thereto, the Board will revise and modify this Order in accordance with such more stringent standards.

E. Provisions

1. Where concentration limitations in mg/l are contained in this permit, the following mass emission limitations shall also apply as follows:

   Mass Emission Limit in lbs/day = Concentration limit in mg/l X 8.34 X Actual Flow in mgd Averaged over the Time Interval to which the Limit Applies.

2. Prior to operation of this facility the Discharger shall submit an operation and maintenance manual acceptable to the Executive Officer, containing a pond management plan. The California Department of Fish and Game and the Napa County Mosquito Abatement District shall be consulted in the development of this manual.

3. The discharger shall comply with a self-monitoring program as ordered by the Executive Officer.

4. The discharger shall permit the Board, the Environmental Protection Agency, or authorized representative in accordance with California Water Code Section 13267(c):

   a. Entry upon premises in which an effluent source is located or in which any required records are kept;

b. Access to copy any records required to be kept under terms and conditions of this Order:

c. Inspection of monitoring equipment or records, and

d. Sampling of any discharge.

5. This Order expires February 16, 1988. The Discharger must file a report of waste discharge in accordance with Title 23, Chapter 3, Subchapter 9 of the California Administrative Code not later than 180 days in advance of such expiration date as application for issuance of new waste discharge requirements.

6. This Order shall serve as a National Pollutant Discharge Elimination System permit pursuant to Section 402 of the Federal Water Pollution Control Act or amendments thereto, and shall become effective ten (10) days after date of its adoption provided the Regional Administrator, Environmental Protection Agency, has no objection. If the Regional Administrator objects to its issuance, the permit shall not become effective until such objection is withdrawn.

I, Fred H. Dierker, Executive Officer, do hereby certify the foregoing is a full, true and correct copy of an Order adopted by the California Regional Water Quality Control Board, San Francisco Bay Region, on February 16, 1983.

FRED H. DIERKER
Executive Officer

CALIFORNIA REGIONAL WATER QUALITY CONTROL BOARD
SAN FRANCISCO BAY REGION

F I N A L

SELF-MONITORING PROGRAM

FOR

EDGERLY ISLAND RECLAMATION DISTRICT

EDGERLY ISLAND

NAPA COUNTY

NPDES NO. CA0038644

ORDER NO. 83-06

CONSISTS OF

PART A,

AND

PART B

PART A

A. GENERAL

Reporting responsibilities of waste dischargers are specified in Sections 13225(a), 13267(b), 13268, 13383, and 13387(b) of the California Water Code and this Regional Board's Resolution No. 73-16.

The principal purposes of a monitoring program by a waste discharger, also referred to as a self-monitoring program, are: (1) to document compliance with waste discharge requirements and prohibitions established by the Regional Board, (2) to facilitate self-policing by the waste discharger in the prevention and abatement of pollution arising from waste discharge, (3) to develop or assist in the development of effluent or other limitations, discharge prohibitions, national standards of performance, pretreatment and toxicity standards, and other standards, and (4) to prepare water and wastewater quality inventories.

B. SAMPLING AND ANALYTICAL METHODS

Sample collection, storage, and analyses shall be performed according to the latest edition of Standard Methods for the Examination of Water and Wastewater prepared and published jointly by the American Public Health Association, American Water Works Association, and Water Pollution Control Federation, or other methods approved and specified by the Executive Officer of this Regional Board.

Water and waste analyses shall be performed by a laboratory currently or previously approved for these analyses by the State Department of Health. The director of the laboratory whose name appears on the certification shall supervise all analytical work in his laboratory and shall sign all reports of such work submitted to the Regional Board.

All monitoring instruments and equipment shall be properly calibrated and maintained to ensure accuracy of measurements.

C. DEFINITION OF TERMS

1. A composite sample is defined as a sample composed of individual grab samples mixed in proportions varying not more than plus or minus five percent from the instantaneous rate of waste flow corresponding to each grab sample collected at regular intervals not greater than one hour, or collected by the use of continuous automatic sampling devices capable of attaining the proportional accuracy stipulated above throughout the period of discharge of 24 consecutive hours, whichever is shorter.

2. A grab sample is defined as an individual sample colleced in fewer than 15 minutes.

3. Standard Observations

a. Receiving Water

(1) Floating and suspended materials of waste origin (to include oil, grease, algae, and other macroscopic particulate matter): presence or absence, source, and size of affected area.

(2) Discoloration and turbidity: description of color, source, and size of affected area.

(3) Odor: presence or absense, characterization, source and distance of travel.

(4) Evidence of beneficial water use: presence of water-associated wildlife, fishermen, and other recreational activities in the vicinity of the sampling stations.

(5) Hydrographic condition:

(a) Time and height of high and low tides corrected to nearest location for the sampling date and time of sample and collection.

(b) Water and sampling depths.

(6) Weather condition:

(a) Air temperatures.

(b) Wind - direction and estimated velocity.

(c) Precipitation - total precipitation during the previous five days and on the day of observation.

b. Waste Effluent

(1) Floating and suspended material of waste orgin (to include oil, grease, algae, and other macroscopic particulate matter): presence or absence.

(2) Odor: presence or absence, characterization, source, distance of travel.

c. Land Retention or Disposal Area

This applies both to liquid and solid wastes confined or unconfined.

(1) Determine height of the freeboard at lowest point of dikes confining liquid wastes.

(2) Evidence of leaching liquid from area of confinement and estimated size of affected area. (Show affected area on a sketch.)

(3) Odor: presence or absence, characterization, source, and distance of travel.

(4) Estimated number of waterfowl and other water-associated birds in the disposal area and vicinity.

d. Periphery of Waste Treatment and/or Disposal Facilities

(1) Odor: presence or absence, characterization, source, and distance of travel.

(2) Weather condition: wind - direction and estimated velocity.

D. SCHEDULE OF SAMPLING, ANALYSES, AND OBSERVATIONS

The discharger is required to perform observations, sampling, and analyses according to the schedule in Part B with the following conditions:

1. Influent

a. Composite samples of influent shall be collected on varying days selected at random.

2. Effluent

a. Composite sample of effluent shall be collected on days coincident with influent composite sampling, or on varying days selected at random.

b. Grab samples of effluent shall be collected during periods of maximum peak flows, unless otherwise stipulated.

3. Receiving Waters

a. Receiving water sampling shall be done on days coincident with composite sampling of effluent.

b. Receiving water samples shall be collected at each station on each sampling day during the period of lower slack water. Where sampling at lower slack water period is not practical, sampling shall be performed during higher slack water period.

c. All samples shall be collected within one foot below the surface of the receiving water body, unless otherwise stipulated.

4. Observations

a. Land disposal sites shall be inspected for evidence of leaching or surfacing waste, and all other applicable Standard Observations.

b. Ponds shall be inspected, and available freeboard of each shall be measured and recorded; odors detected shall be noted.

E. RECORDS TO BE MAINTAINED

1. Written reports, strip charts, calibration and maintenance records, and other records shall be maintained at the waste treatment plant and shall be retained for a minimum of three years. This period of retention shall be extended during the course of any unresolved litigation regarding this discharge or when requested by the Regional Board or Regional Administrator of the U.S. Environmental Protection Agency, Region IX. Such records shall show the following for each sample:

a. Identity of sampling and observation stations by number.

b. Date and time of sampling and/or observations.

c. Date and time that analysis are started and completed, and name of personnel performing the analyses.

d. Complete procedure used, including method of preserving sample and identity and volumes of reagents used. A reference to specific section of Standard Methods is satisfactory.

e. Calculations of results.

f. Results of analysis and/or observations.

2. A tabulation shall be maintained showing the following flow data for influent and effluent stations and disposal areas:

a. Total waste flow or volume for each day.

b. Maximum and minimum flow rates for each day and the times of their occurrences.

c. The average, maximum, and minimum daily flows for each month.

3. A tabulation relative to bypassing and accidental waste spills shall be maintained showing information items listed in Sections F-1 and F-2 for each occurrence.

4. A chronological log for each month shall be maintained of the effluent disinfection and bacterial analyses, showing the following:

   a. Date and time each sample is collected and waste flow rate at time of collection.

   b. Chlorine residual, contact time, and dosage (in kilograms per day and parts per million).

   c. Coliform count for each sample.

   d. Moving median coliform of the number of samples specified by waste discharge requirements.

F. REPORTS TO BE FILED WITH THE REGIONAL BOARD

1. Spill Reports

A report shall be made of any spill of oil or other hazardous material. Spills shall be reported to this Regional Board and the U.S. Coast Guard by telephone immediately after occurrence. A written report shall be filed with the Regional Board within five (5) days and shall contain information relative to:

   a. nature of waste or pollutants,

   b. quantity involved,

   c. cause of spilling,

   d. estimated size of affected area,

   e. nature of effects (i.e., fishkill, discoloration of receiving water, etc.),

   f. corrective measures that have been taken, or planned, and a schedule of these activities, and

   g. persons notified.

2. Bypass Reports

Bypass reporting shall be an integral part of regular monitoring program reporting, and a report on bypassing of untreated waste or bypassing of any treatment unit(s) shall be made which will include cause, time and date, duration and estimated volume of waste bypassed, method used in estimating volume, and persons notified, for planned and/or unplanned bypasses.

The discharger shall file a written technical report at least 15 days prior to advertising for bid on any construction project which would cause or aggravate the discharge of waste in violation of requirements; said report shall describe the nature, costs, and scheduling of all action necessary to preclude such discharge. In no case should any discharge of sewage-bearing wastes be permitted without at least primary treatment and chlorination.

In the event the discharger is unable to comply with the conditions of the waste discharge requirements and prohibitions due to:

(a) maintenance work, power failures, or breakdown of waste treatment equipment, or

(b) accidents caused by human error or negligence, or

(c) other causes such as acts of nature,

The discharger shall notify the Regional Board Office by telephone as soon as he or his agents have knowledge of the incident and confirm this notification in writing within two weeks of the telephone notification. The written report shall include pertinent information explaining reasons for the noncompliance and shall indicate what steps were taken to prevent the problem from recurring.

In addition, if the noncompliance caused by items (a), (b), or (c) above is with respect to any of the effluent limits, the waste discharger shall promptly accelerate this monitoring program to analyze the discharge at least once every day for those constituents which have been violated. Such daily analysis shall continue until such time as the effluent limits have been attained, or until such time as the Executive Officer determines to be appropriate. The results of such monitoring shall be included in the regular Self-Monitoring Report.

3. Self-Monitoring Report

Written reports shall be filed regularly for each calendar month (unless specified otherwise) by the fifteenth day of the following month. The reports shall be comprised of the following:

a. Letter of Transmittal:

A letter transmitting self-monitoring reports should accompany each report. Such a letter shall include a discussion of requirement violations found during the past month and actions taken or planned for correcting violations, such as plant operation modifications and/or plant facilities expansion. If the discharger has previously submitted a detailed time schedule for correcting requirement violations, a reference to the correspondence transmitting such schedule will be satisfactory. Monitoring reports and the letter transmitting reports shall be signed:

(1) In the case of corporations, by a principal Executive Officer at the level of vice-president or his duly authorized representative if such representative is responsible for the overall operation of the facility from which the discharge originates, or

(2) In the case of a partnership, by a general partner, or

(3) In the case of a sole proprietorship, by the proprietor,

(4) In the case of a municipal, State, or other public facility, by either a principal Executive Officer, ranking elected official, or other duly authorized employee.

The letter shall contain a statement by the official, under penalty of perjury, that to the best of the signer's knowledge the report is true and correct.

b. Compliance Evaluation Summary

Each report shall be accompanied by a compliance evaluation summary sheet prepared by the discharger. The discharger will prepare the format using those parameters and requirement limits for receiving water and effluent constituents specified in his permit.

c. Map or Aerial Photograph

A map or aerial photograph shall accompany the report showing sampling and observation station locations.

d. Results of Analyses and Observations

Tabulations of the results from each required analysis specified in Part B by date, time, type of sample, and station, signed by the laboratory director.

e. List of Approved Analysis

(1) Listing of analysis for which the discharger is approved by the State Department of Health.

(2) List of analysis performed for the discharger by another approved laboratory (and copies of reports signed by the laboratory director of that laboratory shall also be submitted as part of the report).

f. Flow Data

(1) The tabulation pursuant to Section E-2.

(2) Listing of the dates and the magnitudes of the flows which exceed 75% of the design capacity of the treatment and/or disposal facilities.

4. Annual Reporting

By January 30 of each year, the discharger shall submit an annual report to the Regional Board covering the previous calendar year. The report shall contain both tabular and graphical summaries of the monitoring data obtained during the previous year. In addition, the report shall contain a comprehenisve discussion of the compliance record and the corrective actions taken or planned which may be needed to bring the discharger into full compliance with the waste discharge requirements.

PART B - EDGERLY ISLAND RECLAMATION DISTRICT, EDGERLY ISLAND, NAPA COUNTY

I. DESCRIPTION OF SAMPLING STATIONS

A. INFLUENT

Station	Description
A-1	At any point in the treatment facilities headworks at which all waste tributary to the system is present and preceding any phase of treatment.

B. EFFLUENT

Station	Description
E-1	At any pont in the outfall from the treatment facilities between the point of discharge and the point at which all waste tributary to that outfall is present.

C. MOUND PERCOLATION SYSTEM

Station	Description
G-1 thru G-10	Monitoring wells should be built for each percolation bed, located as close to the center as possible. The wells should be deep enough to reach the level of collection pipe to observe water depth in each bed.
M-1	At any point in between the disinfection facilities and the holding pond system at which all waste collected from the mound system is present and adequate contact with the disinfectant is assured.

D. HOLDING PONDS SYSTEM

Station	Description
P-1 thru P-3	Located at any point on the surface of holding ponds No. 1, 2, and 3, respectively, within one foot of the water surface, representative of the wastewater.

P-4	Located at any point in pond No. 3 within one foot of the bottom, representative of the wastewater.

E. RECEIVING WATERS

Station	
C-1	At a point within the adjoining 45 acre tidal marsh restoration project area to be operated by the Department of Fish and Game. The appropriate location of this sampling point will be decided by the Department of Fish and Game after the project started.

F. LAND OBSERVATIONS

Station	Description
L-1 thru L-'n'	Located along the perimeter levee of each holding pond at equidistant intervals not to exceed 100 feet. (A sketch showing the locations of these stations will accompany each report.)
R-1 thru R-'n'	Located along the periphery of the waste treatment facilities at equidistant intervals not to exceed 500 feet. (A sketch showing the locations of these stations will accompany each report.)

G. OVERFLOW AND BYPASSES

Station	Description
O-1 thru O'n'	Bypass or overflow from manholes, pump stations or collection system. Note: Initial SMP report to include map and description of each known bypass or overflow location.

II. SCHEDULE OF SAMPLING, ANALYSIS, AND OBSERVATIONS

A. The schedule of sampling, analysis, and observations shall be that given in Table I.

B. Effluent and receiving water samplings as described in paragraph I.B and I.E, respectively, is applicable only when wastewater is discharged to the river.

I, Roger B. James, Executive Officer, hereby certify that the foregoing Self-Monitoring Program:

1. Has been developed in accordance with the procedure set forth in this Regional Board's Resolution No.73-16 in order to obtain data and document compliance with waste discharge requirements established in Regional Board Order No. 83-06.

2. Is effective on the date shown below.

3. May be reviewed at any time subsequent to the effective date upon written notice from the Executive Officer or request from the discharger and revisions will be ordered by the Executive Officer.

ROGER B. JAMES
Executive Officer

Effective Date January 16, 1985

Attachments:
Table I (2 pages)
Notes for Table I

TABLE 1

SCHEDULE FOR SAMPLING, MEASUREMENTS, AND ANALYSIS

Sampling Station	A-1		E-1			All 'G'	M-1		All 'P'	C-1 (5)	All 'L'	All 'R'	All 'O'
TYPE OF SAMPLE	C-8	Cont	G	C-8	Cont	O	G	C-8	G	G	O	O	O
Flow Rate (mgd)		D			D								
BOD, 5-day, 20°C, or COD (mg/l & kg/day)	M			2W				M					
Chlorine Residual & Dosage (mg/l & kg/day)			2W				M						
Settleable Matter (ml/l-hr. & cu. ft./day)			2W				M						
Total Suspended Matter (mg/l & kg/day)	M			2W				M					
Oil and Grease (1) (mg/l & kg/day)				Q				Q					
Coliform (Total or Fecal) (MPN/100 ml) per req't			2W				M						
Fish Tox'y 96-hr. TL_{50}% Surv'l in undiluted waste				M (4)									
Ammonia Nitrogen (mg/l & kg/day)													
Nitrate Nitrogen (mg/l & kg/day)													
Nitrite Nitrogen (mg/l & kg/day)													
Total Organic Nitrogen (mg/l & kg/day)													
Total Phosphate (mg/l & kg/day)													
Turbidity (Jackson Turbidity Units)													
pH (units)			2W				M		M	M			
Dissolved Oxygen (mg/l and % Saturation)			2W				M		M	M			
Temperature (°C)													
Apparent Color (color units)													
Secchi Disc (inches)													
Sulfides (if DO<2.0 mg/l) Total & Dissolved (mg/l)			2W				M		M	M			
Arsenic (2) (mg/l & kg/day)				Y				Y					
Cadmium (2) (mg/l & kg/day)				Y				Y					
Chromium, Total (2) (mg/l & kg/day)				Y				Y					
Copper (2) (mg/l & kg/day)				Y				Y					
Cyanide (2) (mg/l & kg/day)				Y				Y					
Silver (2) (mg/l & kg/day)				Y				Y					
Lead (2) (mg/l & kg/day)				Y				Y					

TABLE 1 (continued)

SCHEDULE FOR SAMPLING, MEASUREMENTS, AND ANALYSIS

Sampling Station	A-1		E-1			All 'G'	M-1		All 'P'	C-1[5]	All 'L'	All 'R'	All 'O'
TYPE OF SAMPLE	C-8	Cont	G	C-8	Cont	O	G	C-8	G	G	O	O	O
Mercury (2) (mg/1 & kg/day)				Y				Y					
Nickel (2) (mg/1 & kg/day)				Y				Y					
Zinc (2) (mg/1 & kg/day)				Y				Y					
Phenolic Compounds (2) (mg/1 & kg/day)				Y				Y					
All Applicable Standard Observations									D[6]	M	W	W	E
Bottom Sediment Analyses and Observations													
Total Ident. Chlor. Hydrocarbons (mg/1 & kg/day)(2)				Y				Y					
Un-ionized Ammonia as N (mg/1) (3)				M						M			
River Flow (MGD)										W			
Volumetric Dilution Ratio (River to Effluent)			W										
Well Water Level (ft.)						D							

LEGEND FOR TABLE

TYPES OF SAMPLES

G = grab sample
C-24 = composite sample - 24-hour
C-X = composite sample - X hours (used when discharge does not continue for 24-hour period)
Cont = continuous sampling
DI = depth-integrated sample
BS = bottom sediment sample
O = observation

TYPES OF STATIONS

A = treatment facility influent stations
E = waste effluent stations
C = receiving water stations
R = treatment facilities perimeter stations
L = basin and/or pond levee stations
M = mound system effluent stations
G = mound system monitoring well stations
P = holding pond stations
O = overflow and bypasses

FREQUENCY OF SAMPLING

E = each occurrence
H = once each hour
D = once each day
W = once each week
M = once each month
Y = once each year

2/H = twice per hour
2/W = 2 days per week
5/W = 5 days per week
2/M = 2 days per month
2/y = once in March and once in September
Q = quarterly, once in March, June, September and December

2H = every 2 hours
2D = every 2 days
2W = every 2 weeks
3M = every 3 months
Cont = continuous

NOTES FOR TABLE I

(1) Oil and grease sampling shall consist of 3 grab samples taken at equal intervals during the sampling day, with each grab being collected in a glass container and analyzed separately. Results shall be expressed as a weighted average of the 3 values, based upon the instantaneous flow rates at the time each grab samples was analyzed.

(2) Each of these constituents would be tested for within the first year of operation and any constituent that was over the limits set by the Regional Board or considered to be a potential problem would be tested for annually.

(3) Unionized Ammonia as N shall be tested during periods of discharge to Napa River.

(4) Rainbow trout should be used as test species for bioassay testing. Tests should be performed monthly during the period of discharge to receiving water. In addition, a pre-season test need to be performed in October to assure the non-toxicity of pond effluent previous to their discharge to the restoration project area.

(5) All samplings and observations of the receiving water shall be performed during high tide period.

(6) Daily surveillance of bird activity should be performed during the period from August 1 through November 30 of each year to prevent the spread of avian botulism. Notifications shall be made to the Department of Fish and Game immediately by phone after the observations of dead or diseased birds.